

## ABSTRACT

A burner having an elongate, generally tubular sheet metal body having an inlet end, a closed distal end and a tubular segment extending between the ends. The inlet end is formed to define a gas orifice holder which is adapted to mount a gas orifice element. The inlet end is further formed to define at least one primary air opening arranged to admit primary air from a source of primary air. A bluff body is located downstream from the gas orifice element and is positioned such that gas emitted by the orifice impinges on the bluff body. Rows of flame ports are defined in the tubular segment and are arranged to create a desired predetermined flame pattern. When used as a fireplace burner the flame ports may be slot-like in construction and include tabs which determine the effective size of the ports. In a fireplace application, flame ports located below a crossover log, are eliminated and/or formed of reduced size, thus providing a flame of lower height and/or less intensity, thus substantially eliminating sooting. In alternate embodiments, the bluff body is formed by a pair of confronting depressions formed in the inlet end of the burner body. The depressions form a pair of venturi channels which define the mixing chamber. In a third alternate embodiment, the confronting depressions are spaced apart and mount a cylindrical bluff element therebetween. The use of venturi channels eliminates or substantially reduces the incidence of light back. When used as a premix-type burner, a source of primary air under pressure is delivered to the inlet end of the burner and compensates for the restriction posed by the bluff structure, resulting in a blue flame.